Bruhat Bangalore Mahanagara Palike

Excecutive Engineer Project Division Yelahanka

Name of Work: Modified Estimation for Improvements of roads and drains at Thirumenahalli Lake road and Surrounding area in Ward No.05 (Jakkur) Byatarayanapura

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Civil Work								
1	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P No-143 &136 ,I No-19.1&17.4& 17.1,KPWD SR 2018-19) 5km lead= 57+2.0x1.28x88 =77.48								
	CC Drain								
	1st Cross	2	98.65	1.10	1.10	238.73			
	2nd Cross	2	90.30	1.10	1.10	218.53			
	3rd Cross	2	92.75	1.10	1.10	224.46			
	4th Cross	2	93.75	1.10	1.10	226.88			
	1st Main	2	70.25	1.10	1.10	170.01			
	5th Cross	2	78.55	1.10	1.10	190.09			
	6th Cross	2	64.00	1.10	1.10	154.88			
	7th Cross	2	65.25	1.10	1.10	157.91			
	8th Cross	1	63.80	1.10	1.10	77.20			
	3rd Block								
	1st Cross	2	100.70	1.10	1.10	243.69			
	2nd Cross	2	127.15	1.10	1.10	307.70			
	Cross road	2	72.45	1.10	1.10	175.33			
	3rd Cross	2	28.85	1.10	1.10	69.82			
	1st Block								
	1st Cross	1	19.30	1.10	1.10	23.35			
	Culvert	21	5.95	1.80	1.05	236.16			
						2714.72	Cum	226.04	613635.00
2	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6** with OPC @ 220kgs. with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18,KPWD SR 2018-19)								
	CC Drain								
	1st Cross	2	98.65	1.10	0.15	32.55			
	2nd Cross	2	90.30	1.10	0.15	29.80			
	3rd Cross	2	92.75	1.10	0.15	30.61			
	4th Cross	2	93.75	1.10	0.15	30.94			
	1st Main	2	70.25	1.10	0.15	23.18			
	5th Cross	2	78.55	1.10	0.15	25.92			
	6th Cross	2	64.00	1.10	0.15	21.12			
	7th Cross	2	65.25	1.10	0.15	21.53			
	8th Cross	1	63.80	1.10	0.15	10.53			
	3rd Block								
	1st Cross	2	100.70	1.10	0.15	33.23			
	2nd Cross	2	127.15	1.10	0.15	41.96			
	Cross road	2	72.45	1.10	0.15	23.91			
	3rd Cross	2	28.85	1.10	0.15	9.52			

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	Description of Items	No	Length	Width	Height	Quantity	Unit	Rate	Amount
		2	34.85	3.15	0.15	3.19			
		1	3.95	3.85	0.15	41.8			
						371.12	Cum	3695.00	13,70,916.00

Providing & laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 320 kgs with 20mm and down size granite metal coarse aggregates at 0.85 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200, including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.58.2,F No-271,KPWD SR 2018-19)

	CC Drain Raft								
	1st Cross	2	98.65	0.90	0.15	26.64			
	2nd Cross	2	90.30	0.90	0.15	24.38			
	3rd Cross	2	92.75	0.90	0.15	25.04			
	4th Cross	2	93.75	0.90	0.15	25.31			
	1st Main	2	70.25	0.90	0.15	18.97			
	5th Cross	2	78.55	0.90	0.15	21.21			
	6th Cross	2	64.00	0.90	0.15	17.28			
	7th Cross	2	65.25	0.90	0.15	17.62			
	8th Cross	1	63.80	0.90	0.15	8.61			
	3rd Block								
	1st Cross	2	100.70	0.90	0.15	27.19			
	2nd Cross	2	127.15	0.90	0.15	34.33			
	Cross road	2	72.45	0.90	0.15	19.56			
	3rd Cross	2	28.85	0.90	0.15	7.79			
	1st Block								
	1st Cross	1	19.30	0.90	0.15	2.61			
	CC Drain Wall								
	1st Cross	4	98.65	0.15	0.60	35.51			
	2nd Cross	4	90.30	0.15	0.60	32.51			
	3rd Cross	4	92.75	0.15	0.60	33.39			
	4th Cross	4	93.75	0.15	0.60	33.75			
	1st Main	4	70.25	0.15	0.55	23.18			
	5th Cross	4	78.55	0.15	0.60	28.28			
	6th Cross	4	64.00	0.15	0.60	23.04			
	7th Cross	4	65.25	0.15	0.60	23.49			
	8th Cross	2	63.80	0.15	0.60	11.48			
	3rd Block								
	1st Cross	4	100.70	0.15	0.60	36.25			
	2nd Cross	4	127.15	0.15	0.60	45.77			
	Cross road	4	72.45	0.15	0.60	26.08			

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	3rd Cross	4	28.85	0.15	0.60	10.39			
	1st Block								
	1st Cross	4	19.30	0.15	0.55	6.37			
						646.03	**Cum**	**7423.71**	**4795965.00**
5	KSRB 5.2 Providing and constructing **granite / trap / basalt size stone masonry** in foundation with cement mortar, stone hammered dressed in courses not less than 20 cms high, bond stones at 2m apart in each course including cost of materials, labour, curing complete as per specifications KBS 5.1.13 cement mortar 1:6 KBS 5.1.13 (I No 5.6,P No 25,KPWD SR 2018-19)								
	Culvert								
		42	5.95	0.45	0.75	84.41			
						84.41	**Cum**	**5115.35**	**431798.00**
6	KSRB 4-1.6 ; Providing and laying in **position plain cement concrete of Mix 1:2:4** with OPC @ 240kgs. with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.6,KPWD SR 2018-19)								
	Culvert								
	Coping	42	5.95	0.45	0.10	11.25			
	Bed Concrete	21	5.95	0.60	0.15	11.25			
	For Kerb Stone								
	Thirumenahalli								
	1st Main Rd	2	70.30	0.20	0.10	2.81			
	5th Cross	2	87.60	0.20	0.10	3.50			
	6th Cross	2	67.40	0.20	0.10	2.70			
	7th Cross	2	66.50	0.20	0.10	2.66			
	8th Cross	2	101.50	0.20	0.10	4.06			
	3rd Block								
	2nd Cross	2	125.50	0.20	0.10	5.02			
	Cross road	2	72.50	0.20	0.10	2.90			
						46.14	**Cum**	**6034.69**	**278459.00**
7	Providing and fixing **pre cast solid cement concrete kerb stones** made out of C.C 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. (P.No-27,I No-5.30,KPWD SR 2018-19)								
	For Kerb Stone								
	Thirumenahalli								
	1st Main Rd	2	70.30			140.60			
	5th Cross	2	87.60			175.20			
	6th Cross	2	67.40			134.80			
	7th Cross	2	66.50			133.00			
	8th Cross	2	101.50			203.00			
	3rd Block								
	2nd Cross	2	125.50			251.00			
	Cross road	2	72.50			145.00			
						1182.60			
						2628.00	**Nos**	**454.10**	**1193375.00**

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Providing and Painting two coats after doing the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications (P No 130, Nov-18 & KPWD SR 2018-19)								
	Iron Work Below								
	Thirumenahalli								
	1st Block Rd								
	1st Cross	2	70.30		0.65	89.71			
	2nd Cross	2	87.60		0.65	91.37			
	7th Cross	2	97.40		0.65	47.18			
	8th Cross	2	86.50		0.65	68.55			
	3rd Block	2	101.30		0.65	71.05			
	2nd Cross								
	Cross road	2	125.50		0.65	87.85			
		2	72.50		0.65	50.75			
						413.91	Sqm	89.04	36,855.00
9	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with 10cm thick and finishing cutting ,including form work,curing,including cost of all materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,coompliete .(Data Rate)								
	CC Drain Top Covering Slab								
	1st Cross	2	94.70	0.90		170.46			
	2nd Cross	2	90.30	0.90		162.54			
	3rd Cross	2	88.60	0.90		159.48			
	4th Cross	2	84.80	0.90		152.64			
	1st Main	2	61.00	0.90		109.80			
	5th Cross	2	73.80	0.90		132.84			
	6th Cross	2	54.65	0.90		98.37			
	7th Cross	2	56.40	0.90		101.52			
	8th Cross	1	55.60	0.90		50.04			
	3rd Block								
	1st Cross	2	100.70	0.90		181.26			
	2nd Cross	2	123.90	0.90		223.02			
	Cross road	2	72.50	0.90		130.50			
	3rd Cross	2	28.85	0.90		51.93			
	1st Block								
	1st Cross	1	19.30	0.90		17.37			
	Missing Slab								
	Thirumenahalli Main Rd (Near Doddla Dairy)	1	8.80	0.90		7.92			
	3rd Cross Rd, 3rd Block	1	7.40	0.90		6.66			
						1756.35	Sqm	2453.85	4309819.00
10	Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of all materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge ,KPWD SR 2018-19								
	Culvert Top Slab	11	8.15	1.50		101.48			
		6	6.45	1.20		46.44			
						147.82	Sqm	5685.90	840613.00

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
11	Supplying PVC ring tight pipes conformin to IS 4980 :2000 With latest amendments and conveying to work site rolling and lowering into trenches laying true line level and prefect linking at joints testing and commissoning incuding loading and un loading at both destinations and cuts of pipes wherever neccessary including joints of PVC pipes and specificals (excluding cost of pipes)with jointing of approvel type with all labour with all lead and lift incuding encasing the pipe alround to adepth of not less then 15cms with soft gravel or selected earth availble from the excavation etc , completed and giving necessary hydralic test to the required pressure as per IS (Contractor will make his own arrangement for procuring water for testing)(P. No.133 I No 1.4 BWSSB SR 2018-19) 63mm outer dia, 6kg/sqcm & class 5								
		1	250.00			249.50	Mtr	128.10	31,961.00
12	KSRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 8km lead= (I No-19 14,P No-143,KPWD SR 2018-19)								
	Thirumenahalli								
	Asphalt Road								
	1st Main Rd	1	88.80	6.60	0.30	175.82			
	5th Cross	1	90.30	5.40	0.30	146.29			
	6th Cross	1	88.50	5.70	0.30	151.34			
	7th Cross	1	83.90	6.40	0.30	161.09			
	CC Road								
	1st Cross Road From End	1	94.70	4.40	0.30	125.00			
	2nd Cross Road From End	1	91.30	4.25	0.30	113.71			
	3rd Cross Road From End	1	88.60	4.15	0.30	110.31			
	4th Cross	1	95.00	6.60	0.30	188.10			
	1st Block								
	1st Cross Road	1	69.20	3.80	0.30	78.89			
	Cross Road , 2nd Street	1	62.00	4.30	0.30	79.98			
	3rd Block								
	5th Cross Road	1	71.10	4.85	0.30	103.45			
	6th Cross Road	1	75.60	4.70	0.30	106.60			
	7th Cross Road	1	41.30	6.20	0.30	76.82			
	8th Cross Road	1	37.60	5.20	0.30	58.66			
						1676.04	Cum	67.14	112529.00
13	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications (I No-19 64,P No-147,KPWD SR 2018-19)								
	Thirumenahalli								
	Asphalt Road								
	1st Main Rd	1	88.80	6.60		586.08			
	5th Cross	1	90.30	5.40		487.62			
	6th Cross	1	88.50	5.70		504.45			
	7th Cross	1	83.90	6.40		536.96			
	CC Road								
	1st Cross Road From End	1	94.70	4.40		416.68			
	2nd Cross Road From End	1	91.30	4.25		378.69			
	3rd Cross Road From End	1	88.60	4.15		367.69			
	4th Cross	1	95.00	6.60		627.00			
	1st Block								

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	1st Cross Road								
	Cross Road , 2nd Street	1	69.20	3.80		262.96			
	3rd Block	1	62.00	4.30		266.60			
	5th Cross Road								
	6th Cross Road	1	71.10	4.85		344.84			
	7th Cross Road	1	75.60	4.70		355.32			
	8th Cross Road	1	41.30	6.20		256.06			
		1	37.60	5.20		195.52			
						5586.61	**Sqm**	**6.68**	**37 319.00**
14	Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density complete as per specifications (I No-20.5,P No-153,KPWD SR 2018-19)								
	Thirumenahalli								
	Asphalt Road								
	1st Main Rd	1	88.80	6.50	0.15	86.58			
	5th Cross	1	90.30	5.40	0.15	73.14			
	6th Cross	1	88.50	5.70	0.15	75.67			
	7th Cross	1	83.90	6.40	0.15	80.54			
	CC Road								
	1st Cross Road From End	1	94.70	1.80	0.20	34.09			
	2nd Cross Road From End	1	91.30	1.80	0.20	32.87			
	3rd Cross Road From End	1	88.60	1.80	0.20	31.90			
	4th Cross	1	95.00	1.80	0.20	34.20			
	1st Block								
	1st Cross Road	1	69.20	1.50	0.20	20.76			
	Cross Road , 2nd Street	1	62.00	1.50	0.20	18.60			
	3rd Block								
	5th Cross Road	1	71.10	1.50	0.20	21.33			
	6th Cross Road	1	75.60	1.50	0.20	22.68			
	7th Cross Road	1	41.30	1.50	0.20	12.39			
	8th Cross Road	1	37.60	1.80	0.20	13.54			
						558.29	**Cum**	**2094.67**	**1169426.00**
15	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18,KPWD SR 2018-19)								
	Thirumenahalli								
	Asphalt Road								
	1st Main Rd	1	88.80	6.50	0.225	129.87			
	5th Cross	1	90.30	5.40	0.225	109.71			
	6th Cross	1	88.50	5.70	0.225	113.50			
	7th Cross	1	83.90	6.40	0.225	120.82			
						473.90	**Cum**	**2101.34**	**995829.00**
16	KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6,KPWD SR 2018-19)Issue rate Dated -01-07-2020								
	Thirumenahalli								

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Asphalt Road								
	1st Main Rd								
	5th Cross	1	88.80	6.50		577.20			
	6th Cross	1	90.30	5.40		487.62			
	7th Cross	1	88.50	5.70		504.45			
		1	83.90	6.40		536.96			
						2106.23	Sqm	31.16	65,630.00
17	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7,KPWD SR 2018-19)Issue rate Dated -01-07-2020								
	Thirumenahalli								
	Asphalt Road								
	1st Main Rd	1	88.80	6.50		577.20			
	5th Cross	1	90.30	5.40		487.62			
	6th Cross	1	88.50	5.70		504.45			
	7th Cross	1	83.90	6.40		536.96			
						2106.23	Sqm	13.36	28,139.00
18	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6,KPWD SR 2018-19) Issue rate Dated -01-07-2020								
	Thirumenahalli								
	Asphalt Road								
	1st Main Rd	1	88.80	6.50	0.05	28.86			
	5th Cross	1	90.30	5.40	0.05	24.38			
	6th Cross	1	88.50	5.70	0.05	25.22			
	7th Cross	1	83.90	6.40	0.05	26.85			
						105.31	Cum	6728.09	708545.00
19	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. – do – using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) (P No-171,I No-21.78.12,KPWD SR 2018-19) Issue rate Dated -01-07-2020								
	Thirumenahalli								
	Asphalt Road								
	1st Main Rd	1	88.80	6.50	0.04	23.09			
	5th Cross	1	90.30	5.40	0.04	19.50			
	6th Cross	1	88.50	5.70	0.04	20.18			
	7th Cross	1	83.90	6.40	0.04	21.48			
						84.25	Cum	7914.54	666794.00

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Sl. No.	Description of Items	No.	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross M/S20-1 Providing and Constructing dry lean cement concrete mix (1: 4: 8) 150mm and down size graded granite metal coarse aggregate at 0.8cum and fine aggregate @0.56cum over a prepared sub-base, coarse and fine aggregate conforming to IS 383 20MS aggregate cement ratio not to exceed 25:1, aggregate gradation after blending to be as per Table 5(2-1,optimum moisture content to be determined during trial length construction, compressive strength not to be less than 10 kg/sq.cm at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications, etc with OPC at 250 kg/cum and coarse aggregate 0.8cum, fine aggregate 0.42cum using Concrete Batch mix Plant at 75 cum/hr capacity with fixed form paver. (P.No-176,I No-22.6.1,KPWD SR 2018-19)								
	CC Road								
	1st Cross Road From End	1	94.70	4.40	0.15	62.50			
	2nd Cross Road From End	1	91.30	4.25	0.15	58.20			
	3rd Cross Road From End	1	88.60	4.15	0.15	55.15			
	4th Cross	1	95.00	6.60	0.15	94.05			
	1st Block								
	1st Cross Road	1	69.20	3.80	0.15	39.44			
	Cross Road , 2nd Street	1	62.00	4.80	0.15	39.99			
	3rd Block								
	5th Cross Road	1	71.10	4.85	0.15	50.53			
	6th Cross Road	1	75.60	4.70	0.15	53.30			
	7th Cross Road	1	41.30	6.20	0.15	38.41			
	8th Cross Road	1	37.60	5.20	0.15	29.33			
						520.91	Cum	4879.15	2540863.00
23	**Cement concrete pavement** Construction of un-reinforced plain cement concrete pavement Thickness as per design, over a prepared sub base with 53 grade cement or any other type as per clause 1501.2.2 M30 (Grade) coarse and fine aggregate conforming to IS 383 maximum size of coarse aggregate not exceeding 25mm , mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weight batcher as per approved mix design laid in approved fixed of 125 micron thick polythene film, wedges steel plates including levelling the form work as per drawing) Spreading the concrete with shovels rackers compacted using needle screed and plate vibrator and finished in a continuous operation including provision of contruction joints primer joint sealant curing of concrete slabs for 14 days and water finishing to lines and grade as per drawing and technical specification clause 1501 with all lead lifts loading & unloading charges cost and conveyance of all materials (P.No-176,I No-22.6.2,KPWD SR 2018-19)								
	CC Road								
	1st Cross Road From End	1	94.70	4.40	0.15	62.50			
	2nd Cross Road From End	1	91.30	4.25	0.15	58.20			
	3rd Cross Road From End	1	88.60	4.15	0.15	55.15			
	4th Cross	1	95.00	6.60	0.15	94.05			
	1st Block								
	1st Cross Road	1	69.20	3.80	0.15	39.44			
	Cross Road , 2nd Street	1	62.00	4.80	0.15	39.99			
	3rd Block								
	5th Cross Road	1	71.10	4.85	0.15	50.53			
	6th Cross Road	1	75.60	4.70	0.15	53.30			
	7th Cross Road	1	41.30	6.20	0.15	38.41			
	8th Cross Road	1	37.60	5.20	0.15	29.33			
						520.91	Cum	4879.15	2540863.00

Scanned by TapScanner

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
[illegible]								
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